REMARKS

Claims 9-23 are pending in the application after this amendment adds new claim 23. Claims 9, 10, 13, 14, 16, and 18 are amended to clarify the subject matter recited therein and/or to correct typographic errors. No new matter is added by these amendments.

Claims 10-12, 16, 18-20, and 22 are objected to by the Examiner as being dependent on rejected base claims. Claims 10 and 18 have been amended to include the limitations of their respective base claims, and claims 13 and 14 have been amended to depend from claim 10. Therefore, since claims 11-15 depend from claim 10 and claims 19 and 20 depend from claim 18, all of claims 10-15 and 18-20 are now allowable.

Allowable claim 16 has been amended to include the features of its base claim and to change the reference to "electronic components" to a reference to "first and second intermediate substrates". It is respectfully submitted that claim 16 is allowable as amended, and it is therefore respectfully requested that claim 16 be allowed.

Claims 9 and 17 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,407,456 to Ball (hereinafter Ball), and by U.S. Patent No. 6,476,502 to Yamada et al. (hereinafter Yamada).

Claim 9 relates to a semiconductor device that includes, *inter alia*, a board, first and second intermediate substrates mounted on the board, and a first semiconductor chip having a first surface on which a plurality of first pads are formed and a second surface opposed to the first surface. In claim 9, each of the first bonding pads of the first intermediate substrate is electrically connected to an associated one of the first pads of the first semiconductor chip and each of the second bonding pads is electrically connected to an associated one of the first pads of the first semiconductor chip.

Ball apparently discloses a multichip device including a flip chip and a wire bond assembly (see, e.g., FIG. 4). A die 54 bridges and adheres to lower dice 14. Bond wire 60 interconnects a pad on die 54 to leadframe 16 underlying lower dice 14. Alternatively, a bond wire 92 is interconnected to component 62b adhered to die 14B, and then to bond pad 40 of lead frame 16. Unlike Applicant's device, die 54 is not directly connected to bond pads on one of dice 14. Therefore, Ball does not disclose or suggest an electrical connection between each of the first bonding pads of the first intermediate substrate and an associated one of the first pads of the first semiconductor chip or an electrical connection between each of the second bonding pads of the second intermediate substrate and an associated one of the first pads of the first semiconductor chip. Therefore, Ball does not anticipate claim 9.

Yamada apparently discloses a semiconductor device in which an upper chip 18 is fixed to lower level chips 48 which are attached to a substrate 12. Like Ball, Yamada fails to disclose that upper chip 18 is electrically interconnected to lower level chips 48 by means of wire bonding. Therefore, Yamada does not identically disclose, or even suggest, all of the features of claim 9, and therefore claim 9 is allowable over Yamada.

Claims 17 depends from claim 9 and is therefore allowable for at least the same reasons as claim 9 is allowable.

Claim 22, which is objected to in the Office Action, depends from claim 17 and is therefore allowable for at least the same reasons as claim 17 is allowable.

Claims 13-15 and 21 are rejected 35 U.S.C. § 103(a) as being unpatentable over each of Ball and Yamada. Claims 13-15 have been amended to depend from allowable claim 10, and therefore these claims are allowable.

Claim 21 depends from claim 17 and is therefore allowable for at least the same reasons as claim 17 is allowable.

New claim 23 relates to a semiconductor device that includes, *inter alia*, a board, first and second intermediate substrates, and a second semiconductor chip having a surface on which a plurality of second pads are formed and another surface which opposes the surface. In the device according to claim 23, the second semiconductor chip is mounted over the first and second intermediate substrates in such a manner that a part of the other surface faces the first intermediate substrate without intervention of the first semiconductor chip and another part of the other surface faces the second intermediate substrate without intervention of the first semiconductor chip.

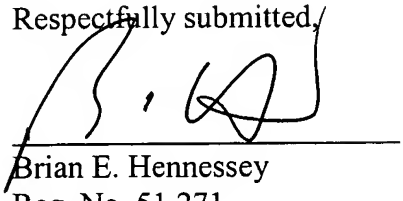
It is respectfully submitted that none of the cited references discloses or suggests the feature of a second semiconductor chip being mounted over a first and second intermediate substrates without intervention of the first semiconductor chip. Therefore, it is respectfully submitted that claim 23 is allowable.

CONCLUSION

In view of the above remarks, it is believed that claims 9-23 are in condition for allowance, which action is respectfully solicited. However, if for any reason the Examiner should consider this application not to be in condition for allowance, the Examiner is respectfully requested to telephone the undersigned attorney at the number listed below prior to issuing a further Action.

Any fee due with this paper, not fully covered by an enclosed check, may be charged on Deposit Account 50-1290.

Respectfully submitted,



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